OIPE

#2.

ENTERED

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    3 <110> APPLICANT: Saha, K.
    5 <120> TITLE OF INVENTION: Methods and Materials Relating to CD8-Tropic HIV-1
    7 <130> FILE REFERENCE: 28335/37036 US
C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/040,802
C--> 9 <141> CURRENT FILING DATE: 2001-12-28
    9 <150> PRIOR APPLICATION NUMBER: US 60/258,472
   10 <151> PRIOR FILING DATE: 2000-12-28
   12 <160> NUMBER OF SEQ ID NOS: 27
   14 <170> SOFTWARE: PatentIn version 3.1
   16 <210> SEQ ID NO: 1
   17 <211> LENGTH: 2610
   18 <212> TYPE: DNA
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   26 gtgcctgtgt ggaaagaagc aaccaccact ctattttgtg catcagatgc taaagcatat    180
   28 agtacagagg tacataatat ttgggccaca catgcctgtg tacccacaga ccccagccca    240
   30 caagaaatag taatggaaaa tgtgacagaa gagttcaaca tgtggaaaaa taacatggta    300
   32 gaacagatgc atgaggatat aatcagttta tgggatgaaa gcctaaagcc atgtgtaaaa.   360
   34 ttaactccac tctgtgttac tctaaattgc actactgagt tgaatcttct aaattgcatt    420
   36 gataatagta ctaatgataa atgtataccg ccagatcaaa aggagaaat  gaaaaactgc    480
   38 tctttcaata tcaccgcagg cataagaaat aaggtgcgga aagaatatgc acttttttat    540
   40 acaagtgatg tagcaccaat agataatgat actatcagtt atagattgat aagttgtaac    600
   42 acctcaatca ttacacaggc ctgtccaaag gtatcctttg agccaattcc catacactat    660
   44 tgtgccccgg ctggtttttgc gattctaaag tgtaaggata ggaatttcaa tggaacagga    720
   46 ctatgtaaaa atgtcagcac agtacaatgt acacatggaa ttaggccagt agtatcaact    780
   48 caactgctgt taaatggcag tctggcagaa aaagagatag taattagatc tgaaaatttc    840
   50 acggacaatg ctaaaaccat aatagtacag ctgcctgaaa tagtacacat taattgtaca    900
   52 agacctaaca ataatataag aaaaggtcta cgtataggac cagggagagc atggtggtat    960
   54 gcaacaagag gaataatagg aaaaatgaga caaacacatt gcaacattag tagagtaaaa   1020
   56 tggaataaca ctttagaaca gatagttaaa aaattaggag acaaatttgg gactaataat   1080
   58 aataaaacaa taatatttaa tcaatcctca ggaggggacc cagaaattac aatgcacact   1140
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   62 attcggaatg gtactgattg gactcgaaat gatactgaag gatcagacat cactaacgaa   1260
  ·64 aatatcacgc tcccatgtag aataaaacaa attataaaca tgtggcagaa agtagggaaa   1320
   66 gcaatgtatg cccctcccat cagtggacaa attagctgtt cctcaaatat tacagggctg   1380
   68 ctattaacac acgatggtgt tgttggtctg tacacgacg  cgaacaacgt gaccttcaga   1440
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   74 aaaagagcag tgggaatagg agctatgttc cttgggttct gggaacagc  aggaagcgct   1620
   76 atgggcgcag cgtcagtgac gctgacggta caagccagac aattattgtc tggtatagtg   1680
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PATENT APPLICATION: US/10/040,802   TIME: 19:23:02

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Output Set: N:\CRF3\01232002\J040802.raw

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84 tggaatagta gttggagtaa tagatctctg ggagacattt gggaaaatga taacatgacc  1920
86 tggatgaagt gggaaagaga aattgataat tacacaagct atatatacac cttaattgaa  1980
88 gaatcgcaga accagcaaga aaagaatgaa ctagaattat tggaattaga caaatgggac  2040
90 agtttgtgga gttggtttag cataacaaac tggctgtggt atataaaaat attcataatg  2100
92 atagtaggag gcttgatagg tttaagaata gttttttagtg tgctttctat agtgaataga  2160
94 gttaggcagg gatactcacc attgtcgttt cagacccggc ccccagcccc gaggggaccc  2220
96 gacaggcccg aaggaatcga agaagaaggt ggagagagag acagagacag atccggcaga  2280
98 ttagtggatg gattcttagc acttatctgg tcgacctgc ggagcctgtg cctcttcagc  2340
100 taccaccgct tgagagactt actcttgatt gcagcgagga ttgtggaact cctgggacgc  2400
102 aggggggtggg aagtcctcaa gtattgttgg aatctcctac agtactggag tcaggaacta  2460
104 aagaatagtg ctgttagctt gcttaatacc atagcaatag cagtagctga ggggacagat  2520
106 agggttatag aaataataca aagagcttgt agagctattc tccacatacc tagaagaata  2580
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112 <211> LENGTH: 477
113 <212> TYPE: PRT
114 <213> ORGANISM: HIV-1
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121             20                  25                  30
124 Leu Trp Val Thr Val Tyr Tyr Gly Val Pro Val Trp Lys Glu Ala Thr
125             35                  40                  45
128 Thr Thr Leu Phe Cys Ala Ser Asp Ala Lys Ala Tyr Ser Thr Glu Val
129         50                  55                  60
132 His Asn Ile Trp Ala Thr His Ala Cys Val Pro Thr Asp Pro Ser Pro
133 65                  70                  75                  80
136 Gln Glu Ile Val Met Glu Asn Val Thr Glu Glu Phe Asn Met Trp Lys
137                 85                  90                  95
140 Asn Asn Met Val Glu Gln Met His Glu Asp Ile Ile Ser Leu Trp Asp
141             100                 105                 110
144 Glu Ser Leu Lys Pro Cys Val Lys Leu Thr Pro Leu Cys Val Thr Leu
145         115                 120                 125
148 Asn Cys Thr Thr Glu Leu Asn Leu Leu Asn Cys Ile Asp Asn Ser Thr
149         130                 135                 140
152 Asn Asp Lys Cys Ile Pro Pro Asp Gln Lys Gly Glu Met Lys Asn Cys
153 145                 150                 155                 160
156 Ser Phe Asn Ile Thr Ala Gly Ile Arg Asn Lys Val Arg Lys Glu Tyr
157                 165                 170                 175
160 Ala Leu Phe Tyr Thr Ser Asp Val Ala Pro Ile Asp Asn Asp Thr Ile
161             180                 185                 190
164 Ser Tyr Arg Leu Ile Ser Cys Asn Thr Ser Ile Ile Thr Gln Ala Cys
165             195                 200                 205
168 Pro Lys Val Ser Phe Glu Pro Ile Pro Ile His Tyr Cys Ala Pro Ala
169     210                 215                 220
172 Gly Phe Ala Ile Leu Lys Cys Lys Asp Arg Asn Phe Asn Gly Thr Gly
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181              260                265                270
184 Ile Val Ile Arg Ser Glu Asn Phe Thr Asp Asn Ala Lys Thr Ile Ile
185          275                280                285
188 Val Gln Leu Pro Glu Ile Val His Ile Asn Cys Thr Arg Pro Asn Asn
189      290                295                300
192 Asn Ile Arg Lys Gly Leu Arg Ile Gly Pro Gly Arg Ala Trp Trp Tyr
193 305                  310                315                320
196 Ala Thr Arg Gly Ile Ile Gly Lys Met Arg Gln Thr His Cys Asn Ile
197              325                330                335
200 Ser Arg Val Lys Trp Asn Asn Thr Leu Glu Gln Ile Val Lys Lys Leu
201              340                345                350
204 Gly Asp Lys Phe Gly Thr Asn Asn Asn Lys Thr Ile Ile Phe Asn Gln
205          355                360                365
208 Ser Ser Gly Gly Asp Pro Glu Ile Thr Met His Thr Phe Asn Cys Gly
209      370                375                380
212 Gly Glu Phe Phe Tyr Cys Asn Thr Thr Gln Leu Phe Asn Ser Thr Trp
213 385                  390                395                400
216 Ile Arg Asn Gly Thr Asp Trp Thr Arg Asn Asp Thr Glu Gly Ser Asp
217              405                410                415
220 Ile Thr Asn Glu Asn Ile Thr Leu Pro Cys Arg Ile Lys Gln Ile Ile
221          420                425                430
224 Asn Met Trp Gln Lys Val Gly Lys Ala Met Tyr Ala Pro Pro Ile Ser
225          435                440                445
228 Gly Gln Ile Ser Cys Ser Ser Asn Ile Thr Gly Leu Leu Leu Thr His
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246 gtgcctgtgt ggaaagaagc aaccaccact ctattttgtg catcagatgc taaagcatat   180
248 agtacagagg tacataatat ttgggccaca catgcctgtg tacccacaga ccccagccca   240
250 caagaaatag taatggaaaa tgtgacagaa gagttcaaca tgtggaaaaa taacatggta   300
252 gaacagatgc atgaggatat aatcagttta tgggatgaaa gcctaaagcc atgtgtaaaa   360
254 ttaactccac tctgtgttac tctaaattgc actactgagt tgaatcttct aaattgcatt   420
256 gataatagta ctagtggtaa taacactgat aatagcacta gtagtaatag tactgatgat   480
258 aaatgtatac cgccagatca aaaggaaaa atgaaaaact gctctttcaa tatcaccgca   540
260 ggcataagag ataaggtgcg gaaagaatat gcactttttt atacaagtga tgtagcacca   600
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264 gcctgtccaa aggtatcctt tgagccaatt cccatacact attgtgcccc ggctggtttt   720
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272 ataatagtac agctgcctga aatagtacac attaattgta caagacctaa caataatata   960
274 agaaaaggtc tacgtatagg accagggaga gcatggtggt atgcaacaag aggaataata  1020
276 ggaaaaatga gacaaacaca ttgcaacatt agtagagaaa aatggaataa cactttagaa  1080
278 cagatagtta aaaaattagg agacaaattt gggactaata ataataaaac aataatattt  1140
280 aatcaatcct caggagggga cccagaaatt acaatgcaca ctttttaattg tggaggggaa  1200
282 ttttttttact gtaatacaac acaactgttt aatagtactt ggattcggaa tggtactgat  1260
284 tggactcaaa atgatactga aggatcagac atcactaacg aaaatatcac gctcccatgt  1320
286 agaataaaac aaattataaa catgtggcag gaagtaggga aagcaatgta tgcccctccc  1380
288 atcagtggac aaattagctg ttcatcaaat attacagggc tgctattaac acgatggt  1440
290 gttgttggtc tgtacacgaa cgcgaacaac gtgaccttca gaccgggagg aggaaatatg  1500
292 aggacaatt ggagaagtga attatataaa tataaagtaa taaaagttga accaatagga  1560
294 atagcaccca ccaaggcaaa gagaagagtg gtgcagagag aaaaaagagc agtgggaata  1620
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335 <212> TYPE: PRT
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345   20   25   30
348 Leu Trp Val Thr Val Tyr Tyr Gly Val Pro Val Trp Lys Glu Ala Thr
349   35   40   45
352 Thr Thr Leu Phe Cys Ala Ser Asp Ala Lys Ala Tyr Ser Thr Glu Val
353   50   55   60
356 His Asn Ile Trp Ala Thr His Ala Cys Val Pro Thr Asp Pro Ser Pro
357 65   70   75   80
360 Gln Glu Ile Val Met Glu Asn Val Thr Glu Glu Phe Asn Met Trp Lys
361   85   90   95

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371 Asn Cys Thr Thr Glu Leu Asn Leu Leu Asn Cys Ile Asp Asn Ser Thr
372     130             135             140
375 Ser Gly Asn Asn Thr Asp Asn Ser Thr Ser Ser Asn Ser Thr Asp Asp
376 145             150             155             160
379 Lys Cys Ile Pro Pro Asp Gln Lys Gly Lys Met Lys Asn Cys Ser Phe
380             165             170             175
383 Asn Ile Thr Ala Gly Ile Arg Asp Lys Val Arg Lys Glu Tyr Ala Leu
384         180             185             190
387 Phe Tyr Thr Ser Asp Val Ala Pro Ile Asp Asn Asp Ala Ile Ser Tyr
388         195             200             205
391 Arg Leu Ile Ser Cys Asn Thr Ser Ile Ile Thr Gln Ala Cys Pro Lys
392     210             215             220
395 Val Ser Phe Glu Pro Ile Pro Ile His Tyr Cys Ala Pro Ala Gly Phe
396 225             230             235             240
399 Ala Ile Leu Lys Cys Lys Asp Arg Asn Phe Asn Gly Thr Gly Leu Cys
400             245             250             255
403 Lys Asn Val Ser Thr Val Gln Cys Thr His Gly Ile Arg Pro Val Val
404             260             265             270
407 Ser Thr Gln Leu Leu Leu Asn Gly Ser Leu Ala Lys Lys Glu Ile Val
408         275             280             285
411 Ile Arg Ser Glu Asn Phe Thr Asp Asn Ala Lys Thr Ile Ile Val Gln
412     290             295             300
415 Leu Pro Glu Ile Val His Ile Asn Cys Thr Arg Pro Asn Asn Asn Ile
416 305         ·   310             315             320
419 Arg Lys Gly Leu Arg Ile Gly Pro Gly Arg Ala Trp Trp Tyr Ala Thr
420             325             330             335
423 Arg Gly Ile Ile Gly Lys Met Arg Gln Thr His Cys Asn Ile Ser Arg
424         340             345             350
427 Glu Lys Trp Asn Asn Thr Leu Glu Gln Ile Val Lys Lys Leu Gly Asp
428         355             360             365
431 Lys Phe Gly Thr Asn Asn Asn Lys Thr Ile Ile Phe Asn Gln Ser Ser
432     370             375             380
435 Gly Gly Asp Pro Glu Ile Thr Met His Thr Phe Asn Cys Gly Gly Glu
436 385             390             395             400
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456 465             470             475             480
459 Val Val Gly Leu Tyr Thr Asn Ala Asn Asn Val
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VERIFICATION SUMMARY   DATE: 01/23/2002
PATENT APPLICATION: US/10/040,802   TIME: 19:23:03

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Output Set: **N:\CRF3\01232002\J040802.raw**

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L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date